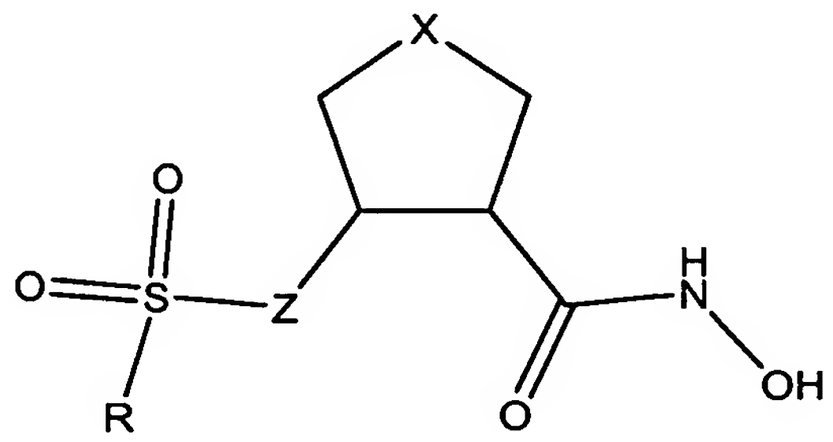
Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Original) A compound having the following formula:



wherein

X is $(CH_2)_nO$, $(CH_2)_nS$, $(CH_2)_nNR^1$, $(CH_2)_n(CH_2)$, or CH=CH, wherein n = 0, 1, or 2;

R and R^1 are, independently, a substituted or unsubstitued alkyl, alkenyl, alkynyl, aryl, heteroaryl group, cycloalkyl, heterocycloalkyl, cycloalkenyl, or heterocycloalkenyl; and

Z is NH or CH_2;

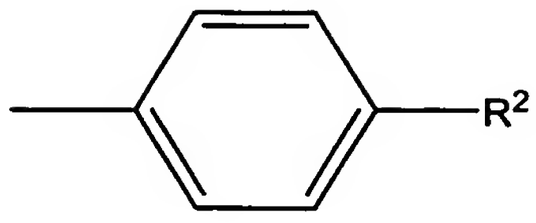
or a pharmaceutically acceptable salt thereof.

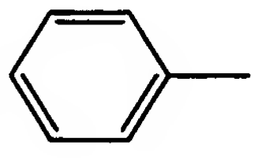
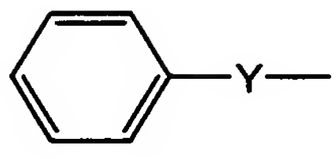
2. (Original) The compound of claim 1, wherein Z is NH.

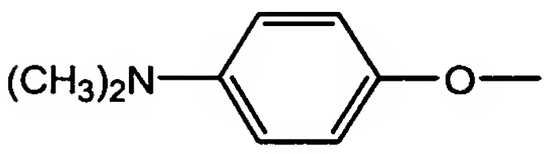
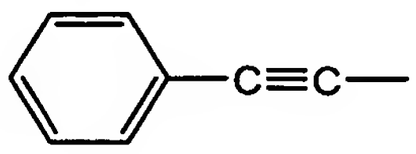
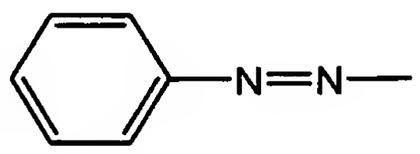
3. (Original) The compound of claim 1, wherein Z is CH_2.

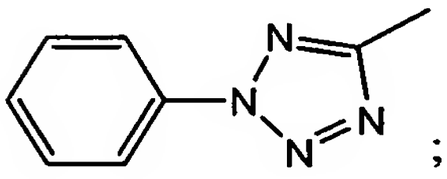
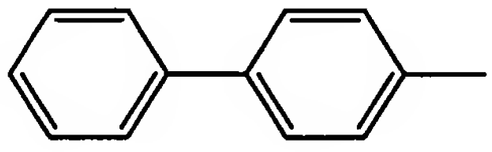
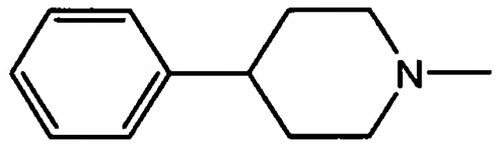
4. (Currently amended) The compound of claim 2, ~~claims 2 or 3~~, wherein R is a substituted or unsubstituted aryl or heteroaryl group.

5. (Currently amended) The compound of claim 2, ~~claims 2 or 3~~, wherein R is a substituted aryl group of the following formula:

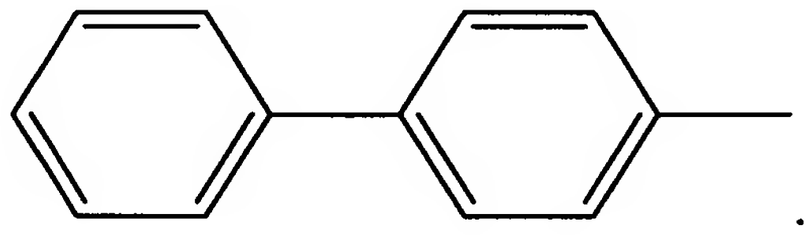
R = 

wherein R^2 is Br; methoxy;  ;  , wherein Y = O, S, or CH_2;

 ;  ;  ;

 ;  ; or  .

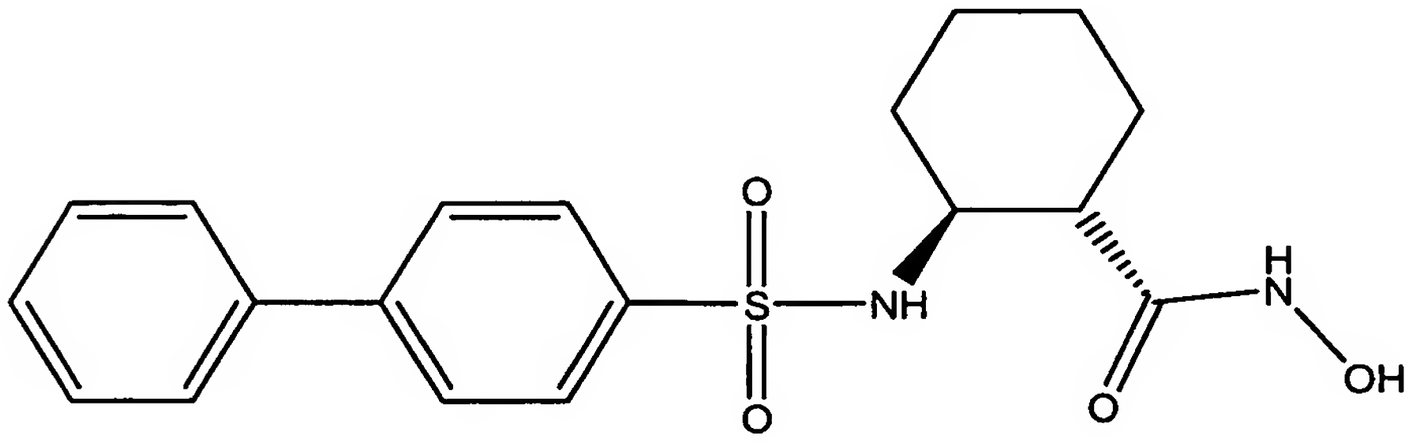
6. (Currently amended) The compound of claim 2, ~~claims 2 or 3~~, wherein R is:

 .

7. (Currently amended) The compound of claim 2, ~~claims 2 or 3~~, wherein X is $(CH_2)_n(CH_2)$ and n = 1.

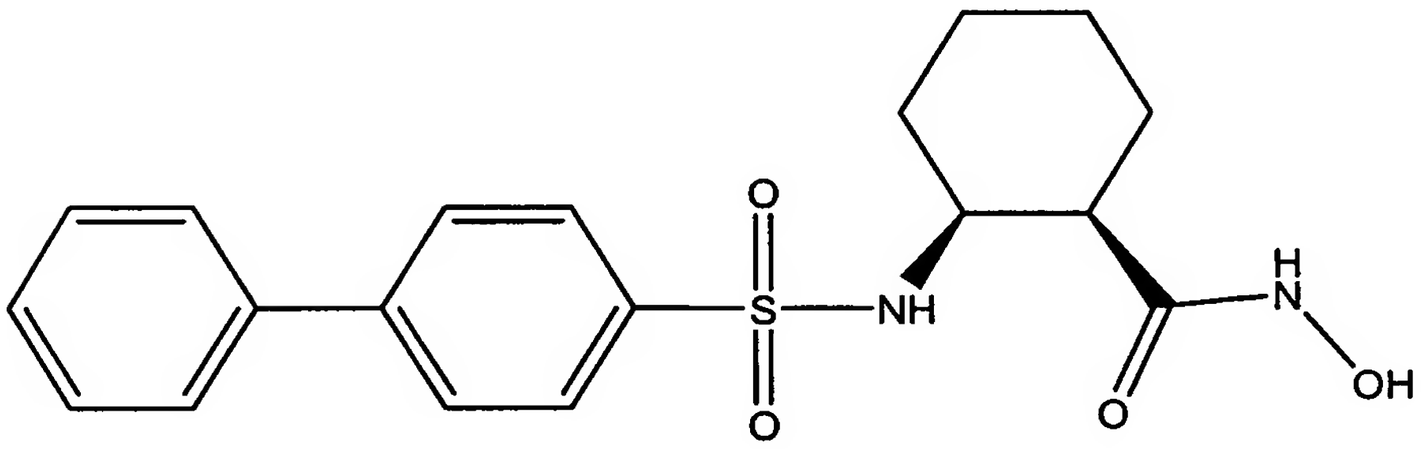
8. (Currently amended) The compound of claim 2 ~~claims 2 or 3~~, wherein X is CH=CH.

9. (Original) The compound of claim 1, wherein the compound is



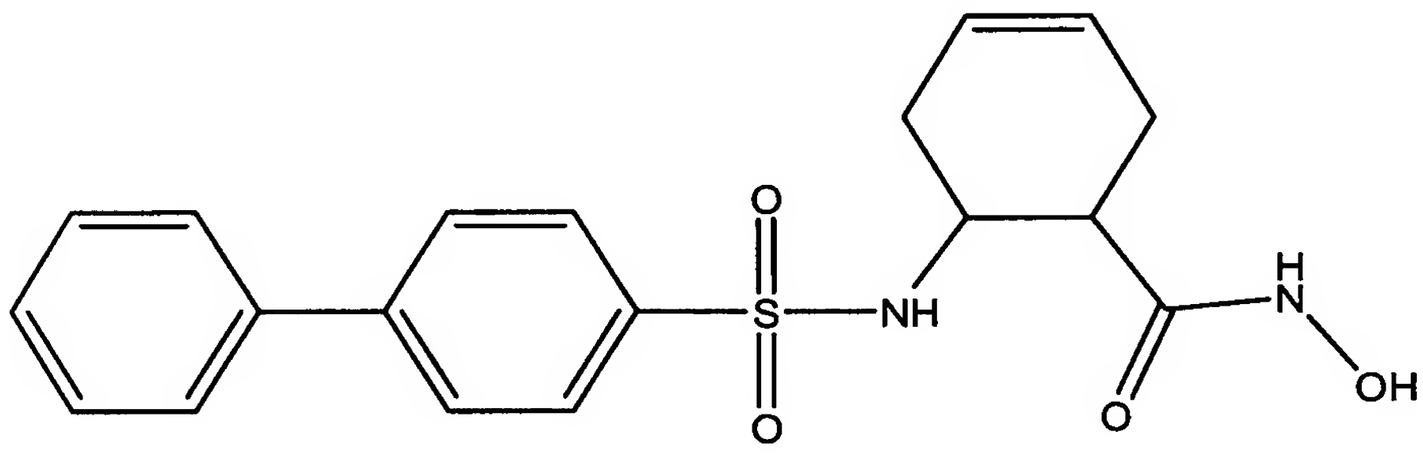
or a pharmaceutically acceptable salt thereof.

10. (Original) The compound of claim 1, wherein the compound is



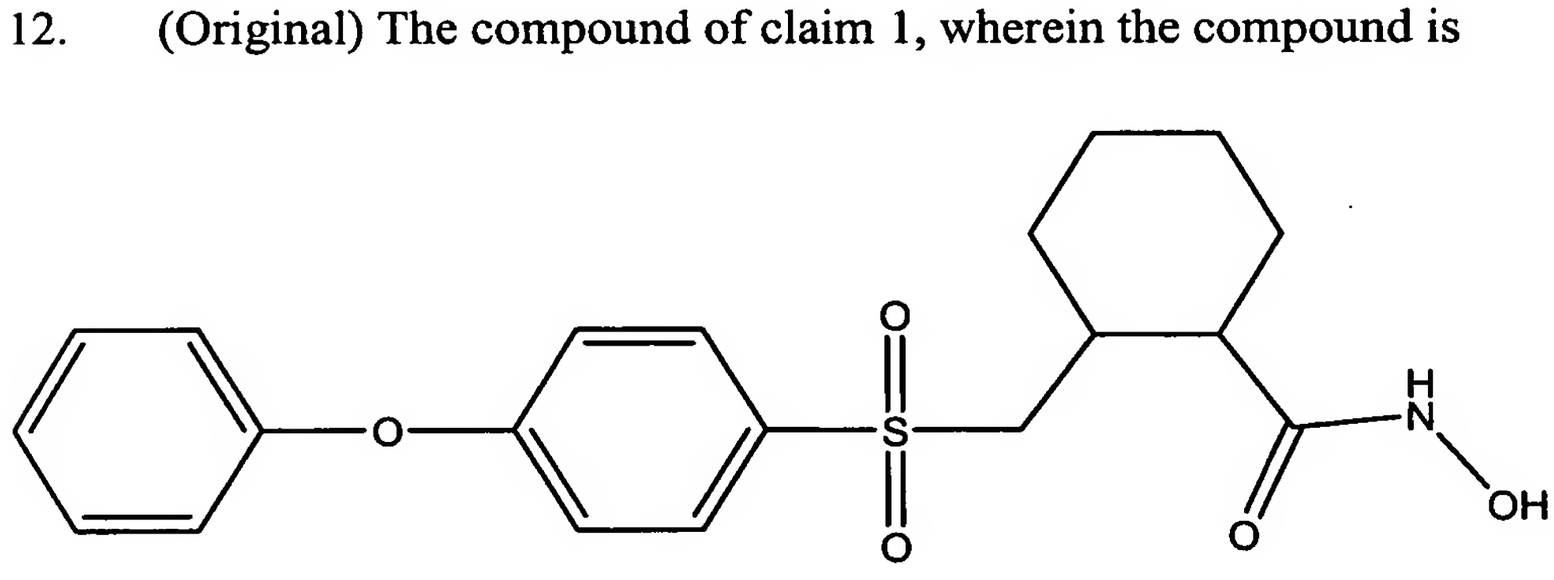
or a pharmaceutically acceptable salt thereof.

11. (Original) The compound of claim 1, wherein the compound is



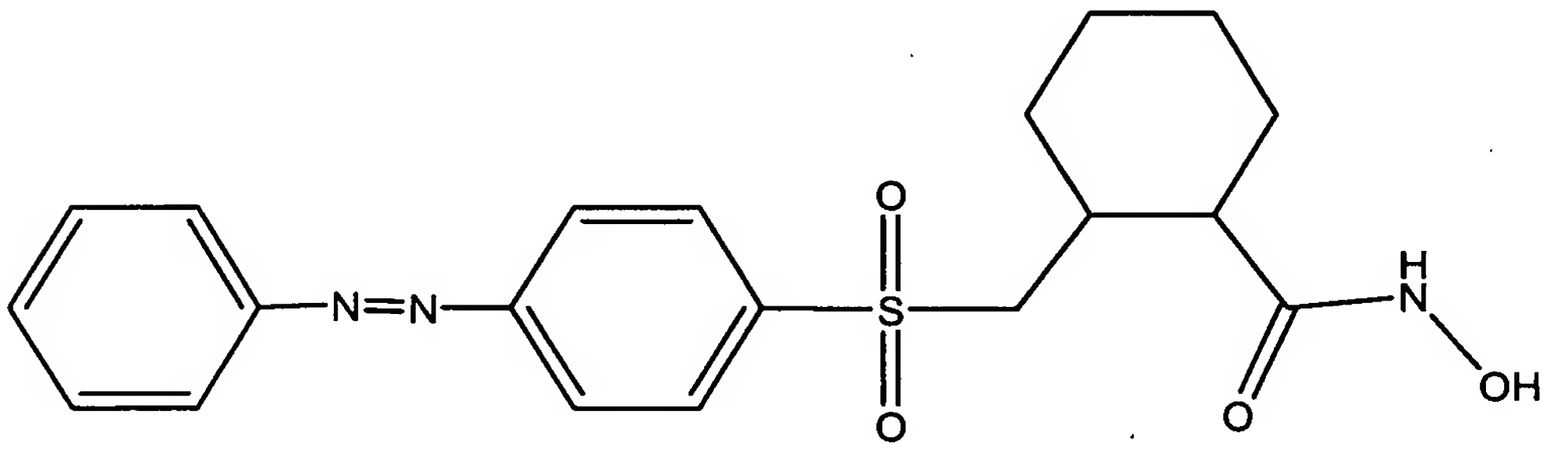
or a pharmaceutically acceptable salt thereof.

12. (Original) The compound of claim 1, wherein the compound is



or a pharmaceutically acceptable salt thereof.

13. (Original) The compound of claim 1, wherein the compound is



or a pharmaceutically acceptable salt thereof.

14. (Original) The compound of claim 1, wherein the compound is a selective modulator of a MMP.

15. (Original) The compound of claim 1, wherein the compound is a modulator of human tumor metastasis.

16. (Original) The compound of claim 1, wherein the compound is a modulator of MMP-2, MMP-9, or a mixture thereof, *in vitro*.

17. (Original) The compound of claim 1, wherein the compound is a selective inhibitor of a MMP.

18. (Original) The compound of claim 1, wherein the compound is an inhibitor of human tumor metastasis.

19. (Original) The compound of claim 1, wherein the compound is an inhibitor of MMP-2, MMP-9, or a mixture thereof, *in vitro*.

20. (Original) A pharmaceutical composition, comprising the compound of claim 1 and a pharmaceutical carrier.

21. (Original) The composition of claim 20, wherein the compound is the compound of claims 9 or 10.

22. (Original) The composition of claim 20, further comprising an anti-cancer agent.

23. (Original) A method for using the compound of claim 1, comprising administering an amount effective for modulation of a MMP of at least one compound of claim 1 to an environment comprising the MMP.

24. (Original) The method of claim 23, wherein the MMP is MMP-2, MMP-9, or a mixture thereof.

25. (Original) The method of claim 23, wherein the at least one compound is the compound of claim 9.

26. (Original) The method of claim 23, wherein the at least one compound is the compound of claim 10.

27. (Original) The method of claim 23, wherein the amount effective for modulation is equivalent to an amount effective for inhibition.

28. (Original) The method of claim 27, wherein inhibition is characterized by an IC_{50} less than about 3000nM.

29. (Original) The method of claim 27, wherein inhibition is characterized by an IC_{50} less than about 200nM.

30. (Original) A method for using the compound of claim 1, comprising:

administering an amount effective for modulation of tumor metastasis of at least one compound of claim 1 to a cell.

31. (Original) The method of claim 30, wherein the amount effective for modulation is equivalent to the amount effective for inhibition.

32. (Original) The method of claim 30, wherein the cell is a HT-1080 cell.

33. (Original) The method of claim 30, wherein inhibition is measured by arrest of tumor invasion.

34. (Original) The method of claim 30, wherein inhibition is measured by arrest of tumor angiogenesis.

35. (Original) A method for treating a subject with cancer comprising administering an effective amount of the compound of claim 1 to a subject in need of the treatment.

36. (Original) The method of claim 35, wherein the cancer is a carcinoma, melanoma, leukemia, or adenoma.

37. (Original) The method of claim 35, wherein the compound of claim 1 is part of an anti-cancer cocktail.

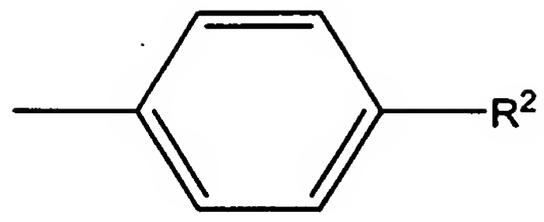
38. (Original) The method of claim 35, wherein the subject is a human.

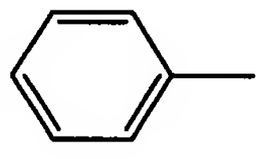
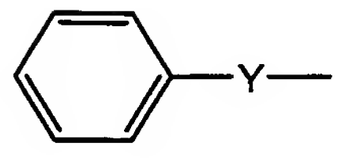
39. (Original) A method for preventing cancer in a subject comprising administering an effective amount of the compound of claim 1 to a subject.

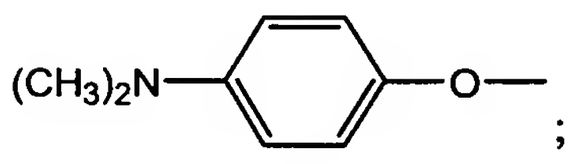
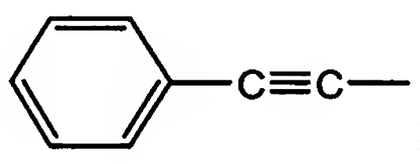
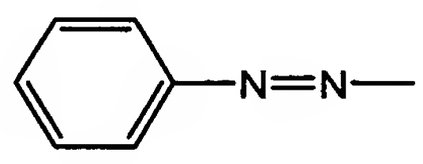
40. (Original) A method for treating a subject with arthritis comprising administering an effective amount of the compound of claim 1 to a subject in need of the treatment.

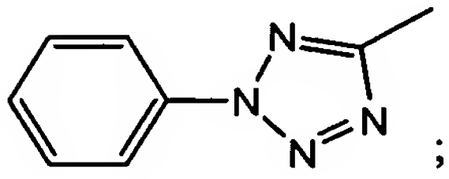
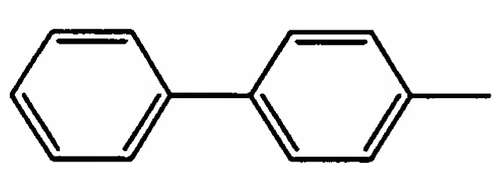
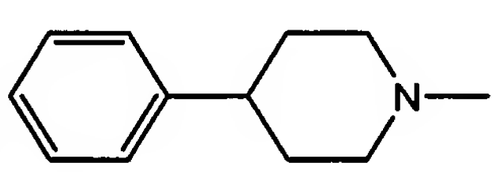
41. (New) The compound of claim 3, wherein R is a substituted or unsubstituted aryl or heteroaryl group.

42. (New) The compound of claim 3, wherein R is a substituted aryl group of the following formula:

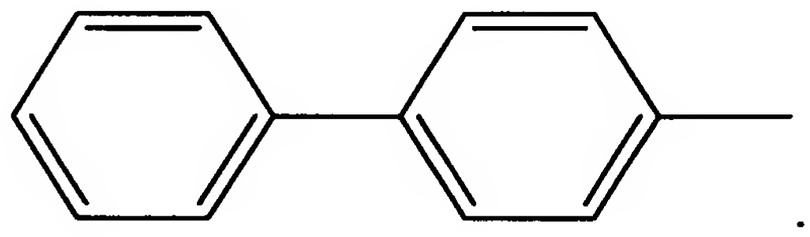
R = 

wherein R^2 is Br; methoxy;  ;  , wherein Y = O, S, or CH_2;

 ;  ;  ;

 ;  ; or  .

43. (New) The compound of claim 3, wherein R is:

 .

44. (New) The compound of claim 3, wherein X is $(CH_2)_n(CH_2)$ and n = 1.

45. (New) The compound of claim 3, wherein X is CH=CH.